

REMARKS

In view of the foregoing amendments and following remarks responsive to the Office Action dated October 10, 2006, Applicant respectfully requests favorable reconsideration of this application.

The Present Invention

The present invention relates to methods and apparatus for selectively routing the audio to the headset or the handset of a mobile transceiver, such as a cellular phone, in a manner that is extremely easy, convenient, and intuitive for the user of the transceiver. Particularly, one of the problems in the prior art addressed by the present invention is the fact that a cellular telephone user often may have the telephone in his or her pocket with the headset connected to the handset. Existing cellular telephones are designed to automatically route the audio to the headset when the jack of the headset is connected to the jack receptacle of the handset. When an incoming call is received, there is a very limited amount of time to answer the call, which the user may wish to answer by using the handset as opposed to the headset (for instance, because the user does not have enough time to unwrap the headset from the handset and place it on his or her head within the limited time available for answering the call). Yet it may be difficult to disconnect the headset jack within that time because the headset wire is wrapped around the handset. Alternately, the user may not realize that the headset is plugged in and may attempt to talk on the telephone using the speaker and microphone of the handset, only to discover that the speaker and microphone on the handset are disabled because the headset is plugged in. This is a less than optimal design.

The present invention solves this problem. In accordance with the first embodiment of the invention, first and second switches are provided on the handset and headset, respectively. Operation of the switch on the handset initiates (or accepts) the call (i.e., takes the phone "off-hook") and automatically routes the call on a first audio path that is connected to the microphone and speaker of the handset. If, on the other hand, the user operates the second switch on the headset, the phone is taken "off-hook" and simultaneously the call is routed on a second audio path to the microphone and speaker of the headset. Accordingly, the audio path is selected by the user's choice of which switch he/she operates and is not dictated to the user merely by the fact that the headset is connected to the handset.

Discussion

The Examiner has maintained all previous prior art rejections. The present invention and the cited prior art references have been fully discussed in at least the last two Office Actions and Responses preceding the present Office Action. Accordingly, those arguments will not be repeated.

It appears that the present dispute has been narrowed down to the very specific issue addressed in the Response to Arguments section of the latest Office Action. Particularly, the Examiner stated:

The Applicant argued that Gong does not teach "a single first user operable switch disposed in the handset configured such that the operation thereof has the effect both of initiating and/or accepting a call, and of routing audio signals to the audio path corresponding to the handset regardless of whether the headset is connected to the handset" (See Remark, page 7). The

Examiner respectfully disagrees with the Applicant argument because the mobile phone as disclosed by Gong is widely known to comprise a TALK key, wherein the TALK key is the TALK key of a mobile communication device such as mobile phone is widely known to use for initiating and/or accepting a call, and of routing audio signals to the audio path corresponding to one of the handset and the headset on which the switch is disposed regardless of whether the headset is connected to the handset (audio signal is routed to the second audio path only if a hand-free key is selected regardless of whether the headset 190 is connected to the handset) (See figs. 1A, 1B, 2 and col. 2 line 36 to column 3 line 24, column 3 lines 25-44, column 4 lines 44-46). For that reason, the rejections are proper and stand for all pending claims.

The Office's point is well taken. Particularly, Gong discloses that:

[T]he controller 100 checks to determine whether the hands-free mode or function has been selected by depression of the corresponding key on the key input unit 170. If the hands-free mode has been selected, the controller proceeds to step 210. If the hands-free mode has not been selected, and iterative loop ensues and the controller keeps checking to determine whether the hands-free mode has been selected. At step 210, the controller 100 controls the switching unit 150 to switch an output signal from the amplifier 140 to the earphone terminal. (Col. 3, lines 28-35.)

Thus, as the Office points out in the above-quoted Response to Arguments section of the Office Action, when a user presses the assumed TALK button on the

telephone, the signals will be routed to the one of the speaker or the earphone terminal depending on the condition of the hands-free switch, and not depending on the connection of any headset to the earphone jack. Hence, according to the Office's analysis, in Gong, operation of the TALK button "has the effect both of initiating and/or accepting a call, and of routing audio signals to said audio path corresponding to said handset regardless of whether said headset is connected to said handset" (claim 1).

Of course, this is very different from the present invention, which, as argued in the previous responses, takes the phone off hook and also selects a particular audio path based on the operation of a single switch. In the preferred embodiment of the invention, the single switch located on the handset takes the phone off hook and routes the signals to the handset audio path, not only regardless of whether the headset is connected to the handset, but also regardless of any other operational condition of the phone, including the condition of any other switch on the phone.

In Gong, on the other hand, the assumed TALK button will take the phone off hook and will route the audio signals to the speaker in the handset automatically only if the hands-free switch is not in the hands-free position. While this step may be performed regardless of whether a headset is connected to the phone, the particular audio path to which the signals are routed clearly does depend on the condition of a second button, i.e., the hands-free button. This is contrary to the basic principle of the present invention of a single button that both takes the phone off hook and dictates the one audio path to be used.

Applicant has herein amended claim 1 to clarify that the single switch takes the phone off hook and routes the audio signals to the handset audio path

regardless of whether the headset is connected and regardless of the condition of any other switch on the telephone. Particularly, claim 1 now recites "that the operation [of the single switch] has the effect both of initiating and/or accepting a call, and of routing audio signals to said audio path corresponding to said handset regardless of whether said headset is connected to said handset and regardless of the condition of any other switch on said mobile station".

Accordingly, Applicant respectfully requests the Office to allow claim 1 as the language of claim 1 adequately distinguishes over Gong.

As discussed in response to the previous Office Actions, the secondary reference, Kim, also does not teach this feature. Accordingly, claim 1 patentably distinguishes over the prior art of record.

Claims 2-6 depend from claim 1 and, therefore, distinguish over the prior art of record for at least the same reasons.

Claim 15 is an independent method claim that recites a similar distinction over the prior art. Particularly, the prior art of record does not teach "responsive to operation of the single first switch, initiating or accepting a call and routing the call on the first audio path regardless of whether said headset is connected to said handset and regardless of the condition of any other switch of said mobile station".

Accordingly, claim 15 patentably distinguishes over the prior art of record for the same reasons discussed above with respect to claim 1.

Claims 16-24 depend from claim 15 and, therefore, distinguish over the prior art of record for at least all of the same reasons discussed above in connection with claim 15. The secondary references, Kim and Bowen, do not remedy the aforementioned shortcomings of the primary reference.

In view of the foregoing amendments and remarks, this application is now in condition for allowance. Applicant respectfully requests the Examiner to issue a Notice of Allowance at the earliest possible date. The Examiner is invited to contact Applicant's undersigned counsel by telephone call in order to further the prosecution of this case in any way.

Respectfully submitted,

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